

<b>Instructor:</b>	Karen A. Daniels, Ph.D.	<b>Teaching Assistant:</b>	Sarah Maggio
<b>Phone:</b>	962-7178		410-302-8885
<b>Office:</b>	TL3084		TL2009 (Grad Lounge)
<b>Office Hours:</b>	M & F 1:00 - 2:00 pm or by appointment		T & Th 11-11:30 am
<b>E-mail:</b>	danielsk@uncw.edu		sem7522@uncw.edu
<b>Website:</b>	<a href="http://people.uncw.edu/danielsk/">http://people.uncw.edu/danielsk/</a>		

**Course description:** This course is an introduction to the principles and methods underlying psychological research. This course will be taught from two perspectives. First, it is important for psychology majors to know how to be *producers* of good research as some of you will go on to graduate training and will need to know how to design, execute, and evaluate scientific techniques. On the other hand, not all psychology majors become researchers. Nevertheless, each of you is bombarded with claims every day based on scientific research—*vaccinations cause autism, exercise can prevent dementia, cell phones cause brain cancer, colors affect mood*—and you need to be able to judge the veracity of such claims. Thus, as constant *consumers* of research, an understanding of experimental psychology will help you to make better decisions, to avoid bias and error, and to ask good questions.

The goal of the course is to provide you with the knowledge and ability to both *conduct* and *critically evaluate* research in psychology and related fields. Experimental methods are emphasized although non-experimental techniques (e.g., surveys, correlation) are also covered. Specific topics include the scientific method, research designs, hypothesis development, measurement, reliability & validity, experimental control, between- vs. within-subjects designs, factorial designs & interactions, common statistical techniques (e.g., t-tests, ANOVA), and issues related to the interpretation and reporting of research findings.

The main learning objectives for this course are divided into information literacy and writing intensive goals. The information literacy goals are to help students: (1) Identify a variety of tools available to **conduct a psychological literature review** on an advanced topic, including use of several key databases (e.g., PsycInfo, PubMed), and to evaluate the credibility of such sources; (2) Understand how to **develop meaningful hypotheses** and scientific arguments on an advanced topic based on a literature review and critical evaluation of the literature; and (3) Determine whether **appropriate scientific methods** were used to generate information from a given source. The main writing intensive goals are to help students: (1) Write **clear and effective critical summaries** of psychological literature on an advanced topic; (2) **Develop verbal interpretations and discussions of data** and use these data to draw and defend appropriate scientific conclusions; (3) **Acknowledge sources appropriately** using citations and references and identify and acknowledge plagiarism of all forms; (4) **Synthesize and evaluate literature** from a variety of scientific sources to form the basis of hypotheses and arguments; (5) Critically **review and identify weaknesses and confounds** in the existing psychological literature; and (6) Conform to all features of the **APA writing style**.

In addition to lectures and discussions, this course also involves a substantial laboratory component. Lab activities include working with Excel and one or more statistical packages, demonstrations and exercises designed to illustrate psychological and methodological principles, and direct experience collecting, analyzing, and interpreting data. The course also involves a substantial writing component with students being required to write a number of reports in APA format (the writing style developed by the *American Psychological Association*).

**Prerequisite:** To take this course, you must have first passed PSY225-*Introductory Statistics for the Behavioral Sciences*. If you have not completed PSY225, please see me!

**Textbook and Readings:** The textbook for this course is *Research Methods in Psychology, 1st Edition* by Beth Morling and is required. In addition to the textbook, you will also be required to read excerpts from other texts and papers from the primary psychological literature. Questions about these readings will be on the exams. I *strongly* encourage you to read all assigned material prior to the class in which it is discussed. Doing so will not only make the class more interesting but will also significantly increase your understanding and retention of the material.

**Grading:** Final grades will be based on a total of 400 points: 200 from 4 exams, 100 from 10 in-class assignments, 30 from an initial research report, 50 from a second research report, and 20 from a team presentation. Each requirement is described in detail below. Grades will be assigned on a 10-point scale [A =90-100%, B = 80-89%, C = 70-79%, D = 60-69%, F = < 60%] with minuses appended to scores ending in 0, 1, or 2 and pluses appended to scores ending in 7, 8, or 9 (except for the grade of A for which there is no plus).

**Exams:** There will be **4 exams, each worth 50 points**. Three exams will occur during the semester; a final exam will occur during the final-exam period. *All exams will be comprehensive but will emphasize recently covered material.* Exams may contain a variety of testing formats (e.g., defining terms, true/false, etc.) but will primarily consist of multiple-choice and short-answer questions. Make-up exams will be given only when a scheduled exam is missed due to a serious, unavoidable emergency (e.g., an acute health condition). If this happens, I will request documentation of the emergency.

**Lab Assignments:** There will be **10 class assignments, each worth 10 points**. These assignments are designed to give you hands-on experience with some of the course concepts and to give you the skills required for your final research project. It is strongly encouraged that you complete and submit all assignments during class time; however, unless otherwise noted on the assignment, they will be due **by Monday at 5pm**. Lab assignments turned in 1 to 2 days late will be awarded 50% of the earned points. Lab assignments will not be accepted beyond 2 late days.

**Research Reports and Team Presentation:** A fundamental component of scientific psychology is designing, conducting, and reporting empirical research. To give you first-hand experience in this process, all students will be required to write two research reports. **The first report will be worth up to 30 points** and will be based on research conducted as a class. The second research report will be based on a team experiment (in teams of 4 students) where teams will design an experiment (based on a topic provided to them), collect and analyze their own data, and report on that experiment in two ways—as an individually-written research report (in APA format) and as a team-based presentation to the class. **The second research report will be worth up to 50 points and the presentation will be worth up to 20 points.** Note that, for the presentation, all team members will be given the same number of points unless one or more team members fail to make a notable contribution to the group project or presentation; in those cases, I will assign points individually to each team member.

**Attendance & Participation:** This is a lab-based, "hands on" course and an important part of it involves participating in lab activities and demonstrations. Many of the activities require the participation of the entire class. Thus, although I will not formally take attendance, **you should treat attendance in this course as mandatory**. Participation in the course is also encouraged, either by asking questions or contributing to class discussions. Although such discussion is not required, it is strongly recommended and can influence your grade. *Please attend all classes and participate!*

**Classroom Conduct:** As a courtesy to me and your classmates, please turn off all phones and other electronic devices (especially during exams) during lectures and labs and do not use computers to conduct non-PSY355 activities during lectures or labs.

**Working With Other Students:** Studying and exchanging *ideas* with other students is a great way to learn, one that I enthusiastically encourage. However, sharing *work* with other students when it is prohibited is cheating. If I suspect this is happening, I will report it to the appropriate university officials.

**Academic Honesty:** The academic honesty policy of UNCW will be strictly followed in this course. Please consult the Undergraduate Catalogue or Student Handbook for specifics about this policy. In brief, neither cheating nor plagiarism will be tolerated in this course.

**Campus Violence and Harassment:** UNCW practices a zero-tolerance policy for violence and harassment of any kind. For emergencies contact UNCW CARE at 962-2273, Campus Police at 962-3184, or Wilmington Police at 911. For University or community resources visit <http://uncw.edu/wsrc/crisis.html>

**Learning Center.** The Learning Center provides writing services with free one-on-one consultations for all students for any academic writing purpose. Consultations are led by faculty-recommended and trained peer tutors or professional tutors that help students identify areas to improve and develop specific revision plans. Students taking PSY410 might find this service useful for helping to produce a strong final paper or to simply improve your writing skills before you graduate. You can get more information at <http://www.uncw.edu/ulc/writing/index.html> or 962-7857.

**Final Note:** My main goal is to help you succeed in PSY355. In addition to teaching you the concepts and theories relevant to Experimental Psychology, I want you to leave this course with the skills necessary to think critically about information you encounter in your daily lives and to communicate your ideas effectively. These skills will be an asset to you in whatever career path you choose to pursue. Most of you will find this course challenging – psychological research *is* challenging. However, I hope you will also find the experience interesting and rewarding. Please feel free to contact me with any questions, concerns, or suggestions that will help you get the most out of this course. I'm looking forward to this semester – I hope you are as well!

### Critical dates

Jan. 9. ....PSY355-003 begins.  
 Jan. 16. ....Last day to drop without a grade.  
 Jan. 21 ..... MLK Day (no class).  
 Feb. 13 ..... EXAM 1.  
 Feb. 27 ..... Last day to drop without penalty/withdraw ("W").  
 Mar. 4. ....Spring Break (no lecture)  
 Mar. 6. ....Spring Break (no lecture)  
 Mar. 8. ....Spring Break (no lab)  
 Mar.18 ..... EXAM 2.  
 Mar. 29 ..... Easter Break (no lab)  
 Apr. 5 ..... Report 1 due electronically by 5pm.  
 Apr. 8 & 10 ..... Data Collection Days.  
 Apr. 15. .... EXAM 3  
 Apr. 24 & 26 ..... Student Presentations.  
 Apr. 26 ..... Last day of classes.  
 Apr. 29 @ 8:00 am ..... FINAL EXAM.  
 May 3 .....Report 2 due electronically by 5pm.

**Class Schedule** (all dates & topics subject to change)

	Lectures				Labs		
	Monday	Wednesday	Reading	Friday			
Week 1		Jan 9	Orientation to Course		11	1: Survey & Student Info	
Week 2	14	Scientific Thinking: Forming Hypotheses	16	Scientific Thinking: Application & Publication	Ch. 1	18	2: Hypotheses & Application Exercise
Week 3	21	MLK Day	23	Research vs. Experience & Intuition	Ch. 2	25	3: Pseudoscience & Basic Excel
Week 4	28	Research vs. Experience & Intuition	30	Finding & Reading Research		Feb 1	4: Finding & Reading Research
Week 5	4	Scientific Writing	6	Validity	Ch. 3	8	5: Methods Exercise
Week 6	11	Finish Up & Review	13	Exam 1		15	Research Project Overview
Week 7	18	Measurement	20	Measurement	Ch. 5	22	6: Measurement Scales & Basic Stats
Week 8	25	Non-Experimental Methods	27	Non-Experimental Methods	Ch. 6	Mar 1	7: Survey Creation & IAT
Week 9	4	Spring Break	6	Spring Break		8	Spring Break
Week 10	11	Correlations	13	Correlations	Ch. 7	15	8: Vassar Stats & Correlations
Week 11	18	Finish Up & Review	20	Exam 2		22	Analyze Survey Data & Project 1
Week 12	25	Experimental Research: Basics	27	Experimental Research: Designs & Threats	Ch. 9/10	29	Easter Break
Week 13	Apr 1	Factorial Designs	3	Factorial Designs	Ch. 11	5	9: Design Your Experiment
Week 14	8	Final Project Data Collection	10	Final Project Data Collection		12	10: Conducting ANOVAs
Week 15	15	Exam 3	17	Quasi-Experimental & Small-N Designs	Ch. 12	19	Final Project Data Analysis & Review
Week 16	22	Research Ethics	24	Student Presentations	Ch. 4	26	Student Presentations
Week 17	29	FINAL EXAM: 8-11am				3	Papers due by 5pm